

CLAIMS

1. A minibody that recognizes CD22.
- 5 2. The minibody of claim 1, wherein the minibody is a diabody.
3. A minibody of any one of (a) to (f):
 - (a) a minibody comprising the amino acid sequence of SEQ ID NO: 1 or 3;
 - (b) a minibody functionally equivalent to the minibody of (a), and comprising the amino
10 acid sequence of SEQ ID NO: 1 or 3 wherein one or more amino acids are substituted, inserted,
deleted, and/or added;
 - (c) a minibody comprising the amino acid sequences of a CDR of SEQ ID NOs: 5 and
7;
 - (d) a minibody functionally equivalent to the minibody of (c), and comprising the amino
15 acid sequence of a CDR of SEQ ID NOs: 5 and 7 wherein one or more amino acids are
substituted, inserted, deleted, and/or added;
 - (e) a minibody comprising the amino acid sequences of a CDR of SEQ ID NOs: 9 and
11; and
 - (f) a minibody functionally equivalent to the minibody of (c), and comprising the amino
20 acid sequence of a CDR of SEQ ID NOs: 9 and 11 wherein one or more amino acids are
substituted, inserted, deleted, and/or added.
4. A method for producing a CD22-recognizing antibody with increased activity by converting
a CD22-recognizing antibody to a low-molecular-weight antibody.
- 25 5. The method of claim 4, wherein the conversion is conversion to a diabody.
6. The method of claim 4 or 5, wherein the activity is an apoptosis-inducing activity.
- 30 7. An apoptosis-inducing agent comprising the minibody of any one of claims 1 to 3, or the
minibody produced by the method of any one of claims 4 to 6, as an active ingredient.
8. The apoptosis-inducing agent of claim 7 that induces tumor cell apoptosis.
- 35 9. The apoptosis-inducing agent of claim 8, wherein the tumor cell is a lymphoma or leukemic
cell.

10. An antitumor agent comprising the minibody of any one of claims 1 to 3, or the minibody produced by the method of any one of claims 4 to 6, as an active ingredient.
- 5 11. The antitumor agent of claim 10, wherein the tumor is a blood tumor.
12. The apoptosis-inducing agent of any one of claims 7 to 9, wherein the antibody is a diabody.
- 10 13. The antitumor agent of claim 10 or 11, wherein the antibody is a diabody.